

a liquid crystal layer between the first and second substrates;
wherein $d\Delta n$ is in the range of $0.29\text{-}0.36\mu\text{m}$, where d is the thickness of the liquid crystal layer, and Δn is the refractive anisotropy of the liquid crystal molecule; and
wherein a variation of light transmittance according to $d\Delta n$ is less than about 60%.

Sub
D2
C2

12. (Amended) A method of making an in-plane switching mode liquid crystal display device having first and second substrates, the method comprising the steps of:
forming a plurality of gate and data bus lines defining pixel regions and arranged on the first substrate;
forming a common line in the pixel region, the common line and the data bus lines having a crossing relationship;
forming a pair of first and second electrodes parallel to each other applying plane electric fields in the pixel regions; and
forming a liquid crystal layer between the first and second substrates;
wherein $d\Delta n$ is in the range of $0.29\text{-}0.36\mu\text{m}$, where d is the thickness of the liquid crystal layer, and Δn is the refractive anisotropy of the liquid crystal molecule; and
wherein a variation of light transmittance according to $d\Delta n$ is less than about 60%.

Sub
D3
C3

23. (Amended) An in-plane switching mode liquid crystal display device comprising:
first and second substrates;
a plurality of gate and data bus lines defining pixel regions and arranged on said first substrate;

a common line in said pixel regions, the common line and the data bus lines having a crossing relationship;

a data electrode and a common electrode parallel to each other applying plane electric fields in said pixel regions;

a liquid crystal layer between said first and second substrates;

a plurality of thin film transistors adjacent respective cross points of said gate and data bus lines, each of said plurality of thin film transistors including a gate electrode, a gate insulator, a semiconductor layer, and source and drain electrodes;

a passivation layer on said plurality of thin film transistors;

a first alignment layer on said passivation layer, said first alignment layer comprising one of polyamide, polyimide, SiO₂, polyvinylalcohol, polyamic acid, and photosensitive material;

a black matrix for preventing light from leaking around said plurality of thin film transistors, said gate bus line, and said data bus line;

a color filter layer on said second substrate;

a second alignment layer on said color filter layer, said second alignment layer comprising one of polyamide, polyimide, SiO₂, polyvinylalcohol, polyamic acid, and photosensitive material, said photosensitive material being selected from the group consisting of polyvinylcinnamate, polysiloxanecinnamate and cellulosecinnamate; and

wherein $d\Delta n$ is in the range of 0.29-0.36 μm , where d is the thickness of said liquid crystal layer, and Δn is the refractive anisotropy of the liquid crystal molecule; and

wherein a variation of light transmittance according to $d\Delta n$ is less than about 60%.

24. (Amended) A method of making an in-plane switching mode liquid crystal display device having first and second substrates, the method comprising:

forming a plurality of gate and data bus lines defining pixel regions and arranged on the first substrate;

forming a common line in the pixel regions, the common line and the data bus lines having a crossing relationship;

forming a data electrode and a common electrode parallel to each other applying plane electric fields in the pixel regions;

forming a liquid crystal layer between the first and second substrates;

forming a plurality of thin film transistors adjacent respective cross points of said gate and data bus lines, each of the plurality of thin film transistors including a gate electrode, a gate insulator, a semiconductor layer, and source and drain electrodes;

forming a passivation layer on said plurality of thin film transistors;

forming a first alignment layer on said passivation layer, said first alignment layer comprising one of polyamide, polyimide, SiO₂, polyvinylalcohol, polyamic acid, and photosensitive material;

forming a black matrix for preventing light from leaking around said plurality of thin film transistors, said gate bus line, and said data bus line;

forming a color filter layer on said second substrate;

forming a second alignment layer on said color filter layer, said second alignment layer comprising one of polyamide, polyimide, polyvinylalcohol, polyamic acid, and photosensitive material, said photosensitive material being selected from the group consisting of polyvinylcinnamate, polysiloxanecinnamate and cellulosecinnamate; and